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Open-ended Working Group of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer
Thirty-seventh meeting
Geneva, 4–8 April 2016
Item 4 (b) of the provisional agenda*

Dubai pathway on hydrofluorocarbons (HFCs) (decision XXVII/1): ways of managing HFCs, including the amendment proposals submitted by parties (UNEP/OzL.Pro.27/5, UNEP/OzL.Pro.27/6, UNEP/OzL.Pro.27/7 and UNEP/OzL.Pro.27/8)

Proposed amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer submitted by India

Note by the Secretariat

1. Pursuant to article 9, paragraph 2, of the Vienna Convention for the Protection of the Ozone Layer, the Secretariat is circulating a proposal to amend the Montreal Protocol on Substances that Deplete the Ozone Layer in respect of hydrofluorocarbons submitted by India (see annex). The proposal is being circulated as submitted, without formal editing by the Secretariat.

2. The amendment proposal, as set out in document UNEP/Ozl.Pro.27/6, along with three other proposals to amend the Protocol in respect of HFCs submitted by Canada, Mexico and the United States of America (UNEP/Ozl.Pro.27/5), the European Union and its member States (UNEP/Ozl.Pro.27/7) and Kiribati, the Marshall Islands, Mauritius, the Federated States of Micronesia, Palau, the Philippines, Samoa and Solomon Islands (UNEP/Ozl.Pro.27/8), was discussed by the Twenty-Seventh Meeting of the Parties, which decided, in decision XXVII/1, that consideration of the amendment proposals would continue at meetings of the parties and meetings of the Open-ended Working Group to be held in 2016.

* UNEP/OzL.Pro.WG.1/37/1.

Annex

Indian Proposal for amendment for Phase-down of Hydrofluorocarbons (HFCs)

1. Background:

HFCs have been widely used chemicals as substitute to Ozone Depleting Substances (ODSs). HFCs being non-ODSs are not controlled so far under the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on Substances that Deplete the Ozone Layer. However, emissions of HFCs are controlled along with other six Green House Gases (GHGs) under the United Nations Framework Convention for Climate Change (UNFCCC) and its Kyoto Protocol. Considering HFCs are high-Global Warming Potential (GWP) chemicals, there is a growing global concern with the increased use of HFCs. It is proposed to phase-down production and consumption of HFCs using expertise and institutions of the Montreal Protocol and continue to include HFCs within the scope of the UNFCCC and its Kyoto Protocol for accounting and reporting of emissions.

The amendment proposal for phase-down of HFCs takes into account challenges in phase-out of Hydrochlorofluorocarbons (HCFCs) in Article 5 Parties by incorporating flexibilities in terms of choice of alternative technologies and timeframe for transitioning from HFCs to safe, technically proven, energy-efficient, economically viable, environment friendly, commercially available low-GWP/zero-GWP technologies.

2. Key Elements of the Indian Proposal

(i) There are 19 HFCs with varying GWP from 4 to 12,400.

(ii) Emissions of HFC-23 and its by-production during production of HCFC-22 to be addressed on priority because of its high-GWP. Comprehensive Research and Development (R&D) efforts should be undertaken to convert HFC-23 into useful products.

(iii) New Annex F and Annex G shall be added to the Protocol following Annex E.

(iv) Nationally determined phase-down steps for HFCs in Article 5 Parties.

(v) Continue to use HCFCs/HFCs and blends of HFCs as transitional substances for phase-out of HCFCs wherever low-GWP/zero-GWP alternatives are not available.

(vi) Full conversion costs be defined as below:

The total cost of converting a chemical production plant from HFC(s) to low-GWP/zero-GWP alternative(s) and/or manufacturing unit of equipment(s)/product(s) from HFCs to low-GWP/ zero-GWP alternative(s) including capital costs, costs of Intellectual Property Rights, patents, technology transfer, research and development, in-house development, lost profit due to shutdown/closure of plant/manufacturing facility, change in structure design, layout of plant and machinery, civil, electrical and mechanical works etc.

(vii) Strengthening of financial mechanism and transfer of technology under the Montreal Protocol by addressing the following:

(a) Compensation for lost profit streams for gradual closure of production facilities of HFCs.

(b) "Full conversion costs":

(1) Converting a production plant of HFC to low-GWP/zero-GWP alternative production plant.

(2) Converting a manufacturing unit of equipment(s)/product(s) from HFCs to low-GWP/ zero-GWP alternative(s) and operating costs at least for 5 years.

(3) Adequate funding for servicing sector including training of technicians, awareness, equipment support to technicians, compensation for obsolescence/immature retirement of equipment etc..

(c) Full second conversion costs wherever transitional technologies shall be deployed.

(d) The amendment shall supersede earlier decisions/agreements if any related to Annex F and Annex G substances between the Parties and the Executive Committee or any other related institutions under the Montreal Protocol.

(viii) A grace period of 15 years for Article 5 Parties to ensure availability of safe, technically proven, energy-efficient, environment friendly, economically viable, commercially available, matured non-HFC technologies.

(ix) The baselines for non-Article 5 Parties for production and consumption should be the average of 2013-2015 with freeze in 2016 and for Article 5 Parties should be the average of 2028-2030 with freeze in 2031 and phase-down with a flexible approach to reach the plateau of 15% of the baseline in 2035 and 2050 respectively. Phase-down steps for Article 5 Parties shall be decided 5 years in advance for the next 5 years period.

(x) Date of freeze shall be the date of eligibility of enterprises for financial assistance in case of Article 5 Parties.

(xi) Prioritization of phase-down of Annex F substances recognizing that there are no alternatives for all HFC applications.

(xii) Annex F substances shall be categorized in the following Groups:

(a) Annex F–Group I: (HFC-134, HFC-134a, HFC-143, HFC-245fa, HFC-365mfc)

(b) Annex F – Group II: (HFC-227ea, HFC-236cb, HFC-236ea, HFC-236fa, HFC-245ca, HFC-43-10mee)

(c) Annex F – Group III: (HFC-32, HFC-125, HFC-143a)

(d) Annex F – Group IV: (HFC-41, HFC-152, HFC-152a, HFC-161)

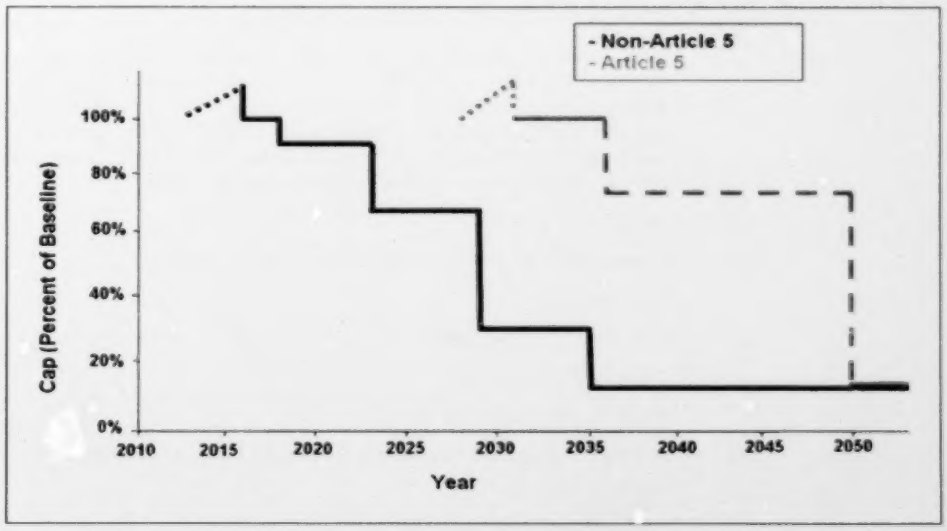
(xiii) Annex G substances: HFC-23:-

(a) Phase-down of production and consumption of HFC-23, if any.

(b) Emissions of HFC-23 and its by-production during production of HCFC-22 to be addressed on priority because of its high-GWP. Comprehensive R&D efforts should be undertaken to make use HFC-23 for converting it in a useful product(s).

(xiv) Separate provisions for non-Article 5 and Article 5 Parties for phase-down of production and consumption of Annex F substances on group-wise prioritization on a GWP-weighted basis.

HFC Reduction Steps for Non-Article 5 and Article 5 Parties (% of baseline)



(xv) Use of GWP weighting for HFCs in the Montreal Protocol.

(xvi) Exemption for production and consumption of HFCs for manufacturing of Metered Dose Inhalers (MDIs) and other medical applications.

(xvii) Provision of Essential Use Nomination (EUN) both for non-Article 5 and Article 5 Parties.

(xviii) No control on feedstock applications of HFCs.

(xix) Requirement of licensing of HFC imports and exports, and bans imports and exports to non-Parties.

(xx) Requirement of reporting of HFC production, import and export of HFCs.

(xxi) Phase-down of production and consumption of HFCs shall be eligible for funding under the Montreal Protocol's Multilateral Fund.

3. **Relationship to HCFC phase-out:**

Recognizing that HFCs are alternatives to HCFCs for various applications and there are no low-GWP/zero-GWP non-HFC alternatives for all the applications, it is proposed to continue the use of HFCs and blends of HFCs as transitional substances for phase-out of HCFCs wherever low-GWP/zero-GWP alternatives are not available.

4. **Relationship with the UNFCCC:**

(i) The proposal is intended to support overall global efforts aimed at climate system protection.

(ii) The proposal envisages continuance of inclusion of HFCs within the scope of the UNFCCC and its Kyoto Protocol for accounting and reporting of emissions.

Note: Above key elements shall form part of operating paragraphs of the decision on HFC amendment.

5. **Text of Indian HFC phase-down amendment proposal**

Article I: Amendment

A. Article 1, paragraph 4

In paragraph 4 of Article 1 of the Protocol, for the words:

"Annex C or Annex E"

there shall be substituted:

"Annex C, Annex E, Annex F or Annex G"

B. *Article* 1, paragraph 9

a new paragraph shall inserted after paragraph 8

9. "Full conversion costs" means the total cost of converting a chemical production plant from HFC(s) to low-GWP/zero-GWP alternative(s) and/or manufacturing unit of equipment(s)/product(s) from HFCs to low-GWP/zero-GWP alternative(s) including capital costs, costs of Intellectual Property Rights, patents, technology transfer, research and development, in-house development, lost profit due to shutdown/closure of plant/manufacturing facility, change in structure design, layout of plant and machinery, civil, electrical and mechanical works.

C. Article 2, paragraph 5

In paragraph 5 of Article 2 of the Protocol, for the words:

"and Article 2H"

there shall be substituted:

"Articles 2H, 2J and 2K"

D. Article 2, paragraphs 8(a) and 11

In paragraphs 8(a) and 11 of Article 2 of the Protocol, for the words:

"Articles 2A to 2I"

there shall be substituted:

"Articles 2A to 2K".

E. Article 2, paragraph 9

The "and" at the end of subparagraph 9(a)(i) of Article 2 of the Protocol shall be moved to the end of subparagraph 9(a)(ii).

The following subparagraph shall be inserted after subparagraph 9(a)(ii) of Article 2 of the Protocol:

"(iii) Adjustments to the global warming potentials specified in Annexes C, F and G should be made and, if so, what the adjustments should be;"

In paragraph 9(c) of Article 2 of the Protocol, the following language shall be inserted immediately after the words "In taking such decisions":

"under subparagraphs 9(a)(i) and (ii)":

For the final semi-colon of paragraph 9(c) of Article 2 of the Protocol there shall be substituted:

"In taking such decisions under subparagraph 9(a)(iii), the Parties shall reach agreement by consensus only;"

F. Article 2J

The following Article shall be inserted after Article 2I of the Protocol:

"Article 2J: Hydrofluorocarbons

1. Each Party shall ensure that for the twelve-month period commencing on 1 January [2016], and in each 12-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually, [one hundred] per cent of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C, Group I controlled substances. Each Party producing one or more of these substances, shall, for the same period, ensure that its calculated level of production of the substances does not exceed annually [one hundred] per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C Group I controlled substances. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C Group I controlled substances.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January [2018], and in each 12-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually, [ninety] per cent of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C, Group I controlled substances. Each Party producing one or more of these substances, shall, for the same period, ensure that its calculated level of production of the substances does not exceed annually [ninety] per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C Group I controlled substances. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C Group I controlled substances.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January [2023], and in each 12-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually, [sixty five] per cent of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C, Group I controlled substances. Each Party producing one or more of these substances, shall, for the same period, ensure that its calculated level of production of the substances does not exceed annually [sixty five] per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C Group I controlled substances. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may

exceed that limit by up to ten per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C Group I controlled substances.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January [2029], and in each 12-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually, [thirty] per cent of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C, Group I controlled substances. Each Party producing one or more of these substances, shall, for the same period, ensure that its calculated level of production of the substances does not exceed annually [thirty] per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C Group I controlled substances. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by upto ten per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C Group I controlled substances.

5. Each Party shall ensure that for the twelve-month period commencing on 1 January [2035], and in each 12-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually, [fifteen] per cent of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C, Group I controlled substances. Each Party producing one or more of these substances, shall, for the same period, ensure that its calculated level of production of the substances does not exceed annually [fifteen] per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C Group I controlled substances. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by upto ten per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C Group I controlled substances.

G. Article 2K

The following Article shall be inserted after Article 2J:

"Article 2K: Other Hydrofluorocarbons

Annex G substances generated as a by-product in facilities that produce Annex C, Group I or Annex F substances shall not be controlled under the Montreal Protocol."

H. Article 3

The preamble to Article 3 of the Protocol should be replaced with the following:

"1. Except as specified in paragraph 2, for the purposes of Articles 2, 2A to 2K and 5, each Party shall, for each group of substances in Annex A, Annex B, Annex C, Annex E or Annex F determine its calculated levels of:"

For the period at the end of subparagraph (c) of Article 3 of the Protocol there shall be substituted a semi-colon, and the "and" at the end of subparagraph (b) of Article 3 of the Protocol shall be moved to the end of subparagraph (c).

The following text should be added to the end of Article 3 of the Protocol:

"2. When calculating average levels of production, consumption, imports, exports and emissions of Annex F, Annex G and Annex C Group I substances for purposes of Article 2J and 2K, each Party shall use the global warming potential of these substances as specified in Annexes C, F and G."

I. Article 4, paragraph 1 sept

The following paragraph shall be inserted after paragraph 1 sex of Article 4 of the Protocol:

"1 sept. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of the controlled substances in Annex F and G from any State not party to this Protocol."

J. *Article 4, paragraph 2 sept*

The following paragraph shall be inserted after paragraph 2 sex of Article 4 of the Protocol:

"2 sept. Within one year of the date of entry into force of this paragraph, each Party shall ban the export of the controlled substances in Annex F and G to any State not party to this Protocol."

K. *Article 4, paragraphs 5, 6 and 7*

In paragraphs 5, 6 and 7 of Article 4 of the Protocol, for the words:

"Annexes A, B, C and E".

there shall be substituted:

"Annexes A, B, C, E, F and G".

L. *Article 4, paragraph 8*

In paragraph 8 of Article 4 of the Protocol, for the words:

"Articles 2A to 2I"

there shall be substituted:

"Articles 2A to 2K".

M. *Article 4B*

The following paragraph shall be inserted after paragraph 2 of Article 4B of the Protocol:

"2 bis. Each Party shall, by 1 January, [2016] or within three months of the date of entry into force of this paragraph for it, whichever is later, establish and implement a system for licensing the import and export of new, used, recycled and reclaimed controlled substances in Annex F and G. Any Party operating under paragraph 1 of Article 5 that decides it is not in a position to establish and implement such a system by 1 January, [2016] may delay taking those actions until 1 January, [2031]."

N. *Article 5, paragraph 4*

In paragraph 4 of Article 5 of the Protocol, for the words:

"Articles 2A to 2I"

there shall be substituted:

"Articles 2A to 2K".

O. *Article 5, paragraphs 5 and 6*

In paragraphs 5 and 6 of Article 5 of the Protocol, for the words:

"Article 2I"

there shall be substituted:

"Articles 2I, 2J and 2K".

P. *Article 5, paragraph 8 qua*

The following paragraph shall be inserted after paragraph 8 ter of Article 5 of the Protocol:

"8 qua. Each Party operating under paragraph 1 of this Article shall:

(a) in order to meet its basic domestic needs, be entitled to delay its compliance with the control measures set out in each of paragraphs 1, 2, and 3 of Article 2J for [fifteen] years, subject to any adjustments made to the control measures in Article 2J in accordance with Article 2(9);

(b) for purposes of calculating its consumption baseline under Article 2J, use the average of its calculated levels of consumption of Annex F controlled substances in the years 2028, 2029 and 2030 plus thirty two and half percent of the baseline of Annex C, Group I substances, instead of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C, Group I controlled substances;

(c) for purposes of calculating its production baseline under Article 2J, use the average of its calculated levels of production of Annex F controlled substances in the years 2028, 2029 and 2030 plus thirty two and half percent of the baseline of Annex C, Group I substances, instead of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C, Group I controlled substances.

(d) ensure that its calculated level of consumption and production:

(i) for purposes of paragraph 1 of Article 2J does not exceed, annually, [one hundred] per cent, of the average of its calculated levels of consumption and production, respectively, of Annex F controlled substances for the years 2028, 2029 and 2030 plus thirty two and half percent of the baseline of Annex C, Group I controlled substances;

(ii) for purposes of paragraph 5 of Article 2J, each party shall ensure that for the twelve months period commencing on 1 January [2050] and in each twelve months period thereafter, its calculated levels of consumption and production, respectively of the controlled substances in Annex F, does not exceed, annually, [fifteen] per cent, of the baseline;

(iii) for purposes of paragraphs 2, 3 and 4 of Article 2J, phase-down steps for production and consumption respectively, from freeze on 1 January, [2031] to plateau of [fifteen] percent on 1 January, [2050] shall be decided 5 years in advance for the next 5 years period.

Q *Article 6*

In Article 6 of the Protocol, for the words:

"Articles 2A to 2I"

there shall be substituted:

"Articles 2A to 2K".

R *Article 7, paragraphs 2, 3 and 3 ter*

The following lines shall be inserted after the line that reads "— in Annex E, for the year 1991," in paragraph 2 of Article 7 of the Protocol:

"— in Annex F, for the years 2013, 2014 and 2015

— in Annex G, for the years 2013, 2014, and 2015"

In paragraphs 2 and 3 of Article 7 of the Protocol, for the words:

"C and E"

there shall be substituted:

"C, E, F and G".

S *Article 10, paragraph 1*

The following paragraph shall be inserted after paragraph 1 of Article 10 of the Protocol:

1 bis. The Parties shall strengthen the financial mechanism for providing financial and technical cooperation, including transfer of technologies to Parties operating under paragraph 1 of Article 5 of this Protocol to enable their compliance with control measures set out in Article 2J, Article 2K and paragraph 8 qua Article 5 of the Protocol for the Annex F and Annex G substances. The financial mechanism shall meet compensation for lost profit stream for gradual closure of production facilities of HFCs, "Full costs of conversion" to HFC production facilities, manufacturing unit of equipment (s)/product(s) from HFCs to low-GWP/zero-GWP alternative (s), operating costs for at least 5 years and adequate funding for servicing sector including training of technicians, awareness, equipment support to technicians, compensation for obsolescence/ immature retirement of equipment, etc.

T. *Article* 10A

After the paragraph (b), a new paragraph (c) shall be inserted:

(c) Protocol shall ensure that the transfer of technology including technologies with Intellectual Property Rights, process and application patents to Parties operating under paragraph 1 of Article 5 of the Protocol for phase down of Annex F and Annex G substances both for production and consumption.

U. Annex C and Annex F

Annex C, Group I is amended to add the 100-year Global Warming Potential for the following substances:

Substance	**100 year Global Warming Potential***
HCFC-21	148
HCFC-22	1,760
HCFC-123	79
HCFC-124	527
HCFC-141b	782
HCFC-142b	1,980
HCFC-225ca	127
HCFC-225cb	525

Annexes F and G shall be added to the Protocol, following Annex E. It shall read:

Annex F: Controlled Substances

Substance	**100 year Global Warming Potential***
Group I (HFC-134, HFC-134a, HFC-143, HFC-245fa, HFC-365mfc)	
HFC-134	1120
HFC-134a	1300
HFC-143	328
HFC-245fa	858
HFC-365mfc	804
Group II: (HFC-227ea, HFC-236cb, HFC-236ea, HFC-236fa, HFC-245ca, HFC-43-10mee)	
HFC-227ea	3350
HFC-236cb	1210
HFC-236ea	1330
HFC-236fa	8060
HFC-245ca	716
HFC-43-10mee	1650
Group III: (HFC-32, HFC-125, HFC-143a)	
HFC-32	677
HFC-125	3170
HFC-143a	4800
Group IV : (HFC-41, HFC-152, HFC-152a, HFC-161)	
HFC-41	116
HFC-152	16
HFC-152a	138
HFC-161	4

Annex G: Controlled Substances

Substance	**100 year Global Warming Potential***
Group I (HFC-23)	
HFC-23	12400

*** Source: Scientific Assessment of Ozone Depletion: 2014**

Article II: Relationship to the 1999 Amendment

No State or regional economic integration organization may deposit an instrument of ratification, acceptance or approval of or accession to this Amendment unless it has previously, or simultaneously, deposited such an instrument to the Amendment adopted at the Eleventh Meeting of the Parties in Beijing, 3 December 1999.

Article III: Relationship to the United Nations Framework Convention on Climate Change and Its Kyoto Protocol

This Amendment is not intended to have the effect of excepting HFCs from the scope of the commitments contained in Articles 4 and 12 of the United Nations Framework Convention on Climate Change and in Articles 2, 5, 7 and 10 of its Kyoto Protocol that apply to "greenhouse gases not controlled by the Montreal Protocol." Each party to this Amendment shall continue to apply the principles and provisions of the United Nations Framework Convention on Climate Change and its Kyoto Protocol identified above to HFCs as long as those principles and provisions, respectively remain in force with respect to such Party.

Accordingly, United Nations Framework Convention on Climate Change and Kyoto Protocol need to be amended.

Article IV: Entry into force

1. Except as noted in paragraph 2, below, this Amendment shall enter into force on 1 January [20xx], provided that at least twenty instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.

2. The changes in Sections H and I of Article I of this Amendment shall enter into force on 1 January [20xx], provided that at least seventy instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.

3. For purposes of paragraphs 1 and 2, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

4. After the entry into force of this Amendment, as provided under paragraphs 1 and 2, it shall enter into force for any other Party to the Protocol on the ninetieth day following the date of deposit of its instrument of ratification, acceptance or approval.

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Dubai pathway on hydrofluorocarbons (HFCs) (decision XXVII/1): ways of managing HFCs, including the amendment proposals submitted by parties (UNEP/OzL.Pro.27/5, UNEP/OzL.Pro.27/6, UNEP/OzL.Pro.27/7 and UNEP/OzL.Pro.27/8)

Proposed amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer submitted by the European Union and its member States

Note by the Secretariat

1. Pursuant to article 9, paragraph 2, of the Vienna Convention for the Protection of the Ozone Layer, the Secretariat is circulating a proposal to amend the Montreal Protocol on Substances that Deplete the Ozone Layer in respect of hydrofluorocarbons submitted by the European Union and its member States (see annexes I and II). The proposal is being circulated as submitted, without formal editing by the Secretariat.

2. The amendment proposal, as set out in document UNEP/Ozl.Pro.27/7, along with three other proposals to amend the Protocol in respect of HFCs submitted by Canada, Mexico and the United States of America (UNEP/Ozl.Pro.27/5), India (UNEP/Ozl.Pro.27/6) and Kiribati, the Marshall Islands, Mauritius, the Federated States of Micronesia, Palau, the Philippines, Samoa and Solomon Islands (UNEP/Ozl.Pro.27/8), was discussed by the Twenty-Seventh Meeting of the Parties, which decided, in decision XXVII/1, that consideration of the amendment proposals would continue at meetings of the parties and meetings of the Open-ended Working Group to be held in 2016.

* UNEP/OzL.Pro.WG.1/37/1.

Annex I

Towards a global phase-down of HFCs under the Montreal Protocol

Explanatory memorandum to the amendment proposal submitted
by the European Union and its Member States

The European Union (EU) and its Member States submit a proposal to amend the Montreal Protocol. The amendment addresses the significant increase of HFC production and consumption, which has led to greater emissions. This amendment is necessary to safeguard and to maximise the climate benefits of the efforts made under this Protocol.

1. Leading considerations

Non-Article 5 Parties, today major consumers of HFCs, are to take the lead in this effort by committing to an ambitious phase-down schedule for the production and consumption of HFCs, beginning in 2019.

To address the different situations in Article 5 and non-Article 5 Parties, it is important that the respective commitments reflect that the phase-out of HCFCs has just started in Article 5 Parties. It is necessary that their socio-economic situation be taken into account, in particular the expected growth of the most relevant sectors using HCFCs and HFCs such as refrigeration and air-conditioning. It is appropriate therefore to apply a different and more flexible commitment design rather than applying the same commitments with a deferred schedule, as it is the case for the phase-out of controlled substances.

To benefit fully from synergies with the ongoing HCFC phase-out, which remains unchanged, measures on HFCs have to start as soon as possible, thus avoiding disruptions and costs caused by interim solutions that would require a further conversion in the future to remedy their adverse impacts on climate.

Additional flexibility is provided by the fact that the proposed measures are calculated in terms of CO_2 equivalents. This approach provides flexibility to increase the quantities of low GWP alternatives used as long as the climate impact does not grow.

The proposed measures for HFCs[1] are not aiming at a complete phase-out – as is the case for the ozone depleting substances controlled under the Montreal Protocol – but at reducing their production and consumption. These measures should complement efforts to reduce climate impacts under the UNFCCC.

This proposed amendment limits the introduction of environmentally harmful HFCs as alternatives to HCFCs and responds to the obligation under the Vienna Convention to protect the environment from adverse effects as a result of measures taken to save the ozone layer.

2. Commitment design

A new Article 2J sets out a reduction schedule for HFC production and consumption, starting in 2019 with a first reduction step to 85% and subsequent steps towards a reduction to 15% in 2034. The baseline includes a percentage of HCFCs, taking into consideration that during the reference period (2009-2012) in line with Article 2F, HCFCs were still produced and consumed.

Non-Article 5 Parties

Production and consumption

- *Baseline:* Average HFC production/consumption in the years 2009 to 2012 plus 45% of average HCFC production/consumption allowed under the Protocol in the years 2009 to 2012, expressed in CO_2 equivalents
- *Reduction schedule* for HFC production/consumption:
  - 2019: 85%
  - 2023: 60%
  - 2028: 30%
  - 2034: 15%

[1] Substances as listed in the proposed new Annex F.

Article 5 Parties are required to freeze the production of HFCs - expressed in CO_2 equivalents - in 2019, and reach a long-term reduction target by 2040. The baseline includes a share of HCFC production – expressed in CO_2 equivalents - acknowledging that during and after the chosen reference period
(2009-2012) a conversion from HCFC to HFCs production may have taken place. Intermediate reduction steps for production should be agreed by 2020.

Article 5 parties are required to freeze the combined climate impacts of HCFC and HFC consumption - expressed in CO_2 equivalents - beginning in 2019, while maintaining the existing HCFC phase-out schedule. A long-term phase-down schedule for this combined HFC/HCFC consumption should be agreed by 2020, including the date for the last phase-down step. This commitment builds on previous decisions under the Montreal Protocol addressing the climate impacts of the replacement of ODS.

Article 5 Parties

Production

- *Baseline:* Average HFC production in the years 2009 to 2012 plus 70% of average HCFC production in the years 2009 to 2012, expressed in CO_2 equivalents
- *Freeze* of HFC production and *reduction target*:
  2019: 100%
  2040: 15%
- *Reduction schedule*: Intermediate reduction steps to be agreed by 2020

Consumption

- *Baseline:* Average HFC and HCFC consumption in the years 2015/2016, expressed in CO_2 equivalents
- *Freeze* of combined HCFC and HFC consumption, expressed in CO_2 equivalents:
  2019: 100%
- *Reduction schedule*: Reduction schedule and reduction steps to be agreed by 2020

3. Other provisions

Although HFCs are not considered as controlled substances subject to a complete phase-out, it is necessary to extend the scope of a number of provisions to substances listed in Annex F in order to implement the specific reduction measures. This includes the provisions on trade with non-parties, licensing, assessment and review, data reporting, non-compliance, research, development, public awareness and exchange of information.

The proposal includes provisions to limit the climate impacts of HFCs resulting inadvertently or coincidentally from the production of HCFCs and HFCs.

4. Finance

Measures related to the HFC production and consumption in Article 5 Parties will be funded via the Multilateral Fund.

The Parties are mandated to agree by means of decision the policies and obligations that will apply for the operation of the Multilateral Fund with respect to the new HFC requirements.

5. Estimated environmental benefits

Global cumulative benefits of the HFC consumption freeze and a production reduction in Article 5 Parties as well as the phase-down of both production and consumption in non-Article 5 Parties amount to a reduction of 79 Gt CO_2eq by 2050 and 127 Gt CO_2eq over 40 years. Furthermore, additional emission reductions can be achieved by addressing HFC-23 by-production.

Reductions in Article 5 Parties amount to 56 Gt CO_2eq by 2050, to a large degree due to avoided future consumption and the reduction of production. Additional reductions are possible by agreeing a phase-down schedule by 2020.

For non-Article 5 Parties, the global cumulative reduction, from current HFC consumption, and the production phase-down amounts to 23 Gt CO_2eq by 2050.

Cumulative estimated environmental benefits of the EU amendment proposal in Article 5, non-Article 5 Parties and globally

Gt CO_2eq	2050	over 40 years
Non-Article 5 Parties (phase-down of production + consumption)	23	33
Article 5 Parties (consumption freeze + production reduction)	56	94
Global total	**79**	**127**

Annex II

Text of the amendment proposal submitted by the European Union and its Member States

Article I: Amendment

A. Preambular paragraphs

In the 2nd preambular paragraph of the Protocol, after the words:

"ozone layer"

there shall be added:

", including changes in climate which have significant deleterious effects"

In the 4th preambular paragraph of the Protocol, after the word:

"substances"

there shall be added:

", and substances commonly used to replace ozone depleting substances"

B. Article 1: Definitions

The following paragraph shall be inserted after paragraph 4 of Article 1 of the Protocol:

"4bis. "Substance listed in Annex F" means a substance specified in Annex F to this Protocol, whether existing alone or in a mixture. It includes the isomers of any such substance, except as specified in the Annex, but excludes any substance or mixture which is in a manufactured product other than a container used for the transportation or storage of that substance. These substances are not controlled substances as defined in paragraph 4 of this Article."

In paragraph 5 of Article 1 of the Protocol, after the word:

"substances"

there shall be added:

"or of substances listed in Annex F"

In paragraph 6 of Article 1 of the Protocol, after the words:

"controlled substances"

there shall be added:

"or of substances listed in Annex F"

C. Article 2: Control Measures

In paragraph 5 of Article 2 of the Protocol, for the words:

"Article 2A to 2F and Article 2H"

there shall be substituted:

"Articles 2A to 2F, Article 2H and Article 2J"

and after the words:

"controlled substances"

there shall be added:

"or substances listed in Annex F"

The following words shall be added at the end of subparagraph (a) of paragraph 8 of Article 2 of the Protocol:

"Any such agreement may be extended to include obligations respecting consumption or production under Article 2J provided that the total combined calculated level of consumption or production of the Parties concerned does not exceed the levels required by Article 2J."

In subparagraph (b) of paragraph 8 of Article 2 of the Protocol, after the word:

"consumption"

there shall be added:

"or production for the substances"

In subparagraph (a)(i) of paragraph 9 of Article 2 of the Protocol, after the second use of the words:

"should be;"

there shall be deleted:

"and"

Subparagraph (a)(ii) of paragraph 9 of Article 2 of the Protocol shall be renumbered as subparagraph (a)(iii), and after the words:

"controlled substances"

there shall be added:

"or of substances listed in Annex F"

The following shall be added after subparagraph (a)(i) of paragraph 9 of Article 2 of the Protocol:

"(ii) Adjustments to the global warming potentials specified in Annex C or in Annex F should be made and, if so, what the adjustments should be; and"

In subparagraph (b) of paragraph 10 of Article 2 of the Protocol, for the words:

"control measures"

there shall be substituted:

"measures"

In paragraph 11 of Article 2 of the Protocol, for the words:

"2A to 2I"

there shall be substituted each time they occur:

"2A to 2J"

D. Article 2J: Hydrofluorocarbons

The following Article shall be inserted after Article 2I of the Protocol:

"Article 2J: Hydrofluorocarbons

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 2019 and in each twelve-month period thereafter, its calculated level of consumption of the substances listed in Annex F, expressed in CO_2 equivalents, does not exceed the percentage, set out for the respective year, of the annual average of its calculated levels of consumption of substances listed in Annex F during the period 2009 to 2012 plus forty-five per cent of the annual average of the limits for its calculated level of consumption of controlled substances in Annex C, Group I as determined in Article 2F for the same reference period, expressed in CO_2 equivalents:

(a) 2019 to 2022: 85%

(b) 2023 to 2027: 60 %

(c) 2028 to 2033: 30 %

(d) 2034 and following years: 15 %.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 2019 and in each twelve-month period thereafter, its calculated level of production of the substances listed in Annex F, expressed in CO_2 equivalents, does not exceed the percentage set out for the respective year of the annual average of its calculated levels of production of substances listed in Annex F during the period 2009 to 2012 plus forty-five per cent of the annual average of the limits for its calculated level of production of controlled substances in Annex C, Group I as determined in Article 2F for the same reference period, expressed in CO_2 equivalents:

(a) 2019 to 2022: 85%

(b) 2023 to 2027: 60 %

(c) 2028 to 2033: 30 %

(d) 2034 and following years: 15 %.

3. Each Party producing Annex C, Group I substances, or substances listed in Annex F, shall ensure that for the 12 month period commencing on 1 January 2019, and in each 12-month period thereafter, its calculated level of substances listed in Annex F, Group II, resulting directly or indirectly, inadvertently or coincidently from each production line that produces Annex C, Group I substances or substances listed in Annex F does not exceed 0.1 per cent of the quantity of Annex C, Group I substances or substances listed in Annex F produced in that production line in the same 12 month period.

4. Each Party shall ensure that any destruction of substances listed in Annex F, Group II resulting directly or indirectly, inadvertently or coincidently from each production line that produces Annex C, Group I substances, or substances listed in Annex F, shall occur only by technologies approved by the Parties."

E. Article 3: Calculation of control levels

The paragraph in Article 3 of the Protocol becomes paragraph 1 of Article 3 of the Protocol and the following paragraphs shall be added thereafter:

"2. For the purposes of Articles 2, 2J and paragraph 8 qua of Article 5, each Party shall, for each group of substances listed in Annex F determine its calculated levels, expressed in CO_2 equivalents, of:

(a) Production by:

(i) multiplying its annual production of each substance listed in Annex C, Group I, or in Annex F by the global warming potential specified in respect of it in these Annexes;

(ii) adding together the resulting figures;

(b) Imports and exports, respectively, by following, mutatis mutandis, the procedure set out in subparagraph (a); and

(c) Consumption by adding together its calculated levels of production and imports and subtracting its calculated level of exports as determined in accordance with subparagraphs (a) and (b). From the date referred to in paragraph 2 sept of Article 4 onwards, any export of substances listed in Annex F to non-Parties shall not be subtracted in calculating the consumption level of the exporting Party;

(d) For the calculation of the calculated levels of substances in Annex C, Group I, referred to in Article 2J and in Article 5 paragraph 8 qua, the share of the individual substances reported for the reference period shall be taken into consideration for each Party.

3. Each Party shall determine its calculated levels, expressed in CO_2 equivalents, of substances listed in Annex F, Group II, resulting inadvertently or coincidentally from each production line that produces Annex C, Group I substances or substances listed in Annex F by multiplying the amounts generated by the global warming potential specified in Annex F, Group II, including amounts that are leaked or released from equipment, process vents, and destruction devices, but excluding amounts destroyed, recovered for use or stored."

F. Article 4: Control of trade with non-Parties

The following paragraph shall be inserted after paragraph 1 sex of Article 4 of the Protocol:
"1 sept. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of the substances listed in Annex F from any State not party to this Protocol."

The following paragraph shall be inserted after paragraph 2 sex of Article 4 of the Protocol:
"2 sept. Within one year of the date of entry into force of this paragraph, each Party shall ban the export of the substances listed in Annex F to any State not party to this Protocol."

In paragraph 5 of Article 4 of the Protocol, for the words:
"A, B, C and E"
there shall be substituted:
"A, B, C, E or substances listed in Annex F"
In paragraph 6 and 7 of Article 4 of the Protocol, for the words:
"A, B, C and E"
there shall be substituted:
"A, B, C, E or of substances listed in Annex F"

In paragraph 7 of Article 4 of the Protocol, after the words:
"destruction of controlled substances"
there shall be added:
"or of substances listed in Annex F"
In paragraph 8 of Article 4 of the Protocol, for the words:
"Articles 2A to 2I"
there shall be substituted:

"Articles 2A to 2J"

In paragraph 9 of Article 4 of the Protocol, after the words:

"controlled substance"

there shall be added:

"or a substance listed in Annex F"

and for the words:

"control measures"

there shall be substituted:

"measures"

G. Article 4B: Licensing

The following paragraph shall be inserted after paragraph 2 of Article 4B of the Protocol:

"2 bis. Each Party shall, by 1 January 2019 or within three months of the date of entry into force of this paragraph for it, whichever is later, establish and implement a system for licensing the import and export of new, used, recycled and reclaimed substances listed in Annex F. Any Party operating under paragraph 1 of Article 5 that decides it is not in a position to establish and implement such a system by 1 January 2019 may delay taking those actions until 1 January 2021."

H. Article 5: Special situation of developing countries

In paragraph 4 of Article 5 of the Protocol, for the words:

"control measures"

there shall be substituted:

"obligations"

for the words:

"Articles 2A to 2I"

there shall be substituted:

"Articles 2A to 2J"

and after the words:

"controlled substances"

there shall be added:

"in Annex A to E or of substances listed in Annex F"

In paragraph 5 of Article 5 of the Protocol, after the words Article 2I, for the word:

"and"

there shall be substituted:

"with"

and after the words:

"paragraph 1 bis of this Article"

there shall be added:

"or with obligations set out in paragraph 8 qua"

In paragraph 6 of Article 5 of the Protocol, for the words:

"any or all of the obligations"

there shall be substituted:

"obligations"

for the words:

"Articles 2A to 2E and Article 2I, or any or all"

there shall be substituted:

"Articles 2A to 2E, Article 2I and Article 2J,"

and after the words:

"paragraph 1 bis of this Article"

there shall be added:

"or obligations set out in paragraph 8 qua"

The following paragraph shall be inserted after paragraph 8 ter of Article 5 of the Protocol:

"8 qua. By way of derogation from Article 2J and without prejudice to the obligations under paragraph 8 ter or Article 2F, each Party operating under paragraph 1 of this Article shall, subject to any adjustment in accordance with Article 2(9), ensure that:

(a) for the twelve-month period commencing on 1 January 2019, and in each 12-month period thereafter, its combined calculated levels of consumption of the substances in Annex F and of the controlled substances in Annex C, expressed in CO_2 equivalents, does not exceed, annually, the annual average of its calculated levels of consumption of these substances during the period 2015 to 2016. Further reduction steps and their timing shall be agreed by the Parties by 2020;

(b) for the twelve-month period commencing on 1 January 2019, and in each 12-month period thereafter, its calculated level of production of the substances in Annex F, expressed in CO_2 equivalents, does not exceed, annually, the annual average of its calculated level of production of substances listed in Annex F during the period 2009 to 2012 plus seventy per cent of the annual average of its calculated levels of production of controlled substances in Annex C, Group I during this reference period. Further reduction steps and their timing shall be agreed by the Parties by 2020;

(c) for the twelve-month period commencing on 1 January 2040, and in each twelve-month period thereafter, its calculated level of production of the substances in Annex F, expressed in CO_2 equivalents, does not exceed fifteen per cent of the annual average of its calculated level of production of substances listed in Annex F during the period 2009 to 2012 plus seventy per cent of the annual average of its calculated levels of production of controlled substances in Annex C, Group I during this reference period."

I. <u>Article 6: Assessment and review of control measures</u>

In Article 6 of the Protocol, for the words:

"control measures"

there shall be substituted each time they occur, including in the title:

"measures"

and for the words:

"Article 2 and Articles 2A to 2I"

there shall be substituted:

"Article 2 and Articles 2A to 2J"

J. Article 7: Reporting of data

The following paragraph shall replace paragraph 2 of Article 7 of the Protocol:

"2. Each Party shall provide to the Secretariat statistical data on its production, imports and exports of each of the

- controlled substances in Annex B and Groups I and II of Annex C for the year 1989;
- controlled substances in Annex E, for the year 1991,
- substances listed in Annex F for the years 2009 to 2012, and for the years 2015 and 2016 in the case of Parties operating under paragraph 1 of Article 5,

or the best possible estimates of such data where actual data are not available, not later than three months after the date when the provisions set out in the Protocol with regard to the substances in Annexes B, C, E and F respectively enter into force for that Party."

In paragraph 3 of Article 7 of the Protocol, after the first use of the words:

"Annexes A, B, C and E"

there shall be added:

", and of the substances listed in Annex F,"

and for the second use of the words:

"Annexes A, B, C and E"

there shall be substituted:

"Annexes A, B, C, E and F"

In paragraph 3 bis of Article 7 of the Protocol, after the words:

"Group I of Annex C"

there shall be added:

"and the substances listed in Annex F"

and after the word:

"recycled"

there shall be added:

"or reclaimed"

The following paragraph shall be inserted after paragraph 3 bis of Article 7 of the Protocol:

"3 ter. Each Party shall provide to the Secretariat statistical data on the substances listed in Annex F, Group II resulting directly or indirectly, inadvertently or coincidently from production lines that manufacture Annex C, Group I substances or substances listed in Annex F, in accordance with paragraph 3 of Article 3, making best use of any related data collected, as well as on the amount of substances listed in Annex F, Group II captured and destroyed by technologies approved by the Parties."

In paragraph 4 of Article 7 of the Protocol, for the words:

"paragraphs 1, 2, 3 and 3 bis"

there shall be substituted:

"paragraphs 1 to 3 ter"

and after the words:

"statistical data on"

there shall be added:

"production,"

K. Article 9: Research, development, public awareness and exchange of information

In paragraph 1 of Article 9 of the Protocol, after the words:

"controlled substances"

there shall be added each time they occur:

"or substances listed in Annex F"

In subparagraph (c) of paragraph 1 of Article 9 of the Protocol, after the words:

"relevant control"

there shall be added:

"and reduction"

In paragraph 2 of Article 9 of the Protocol, for the words:

"controlled substances and other substances that deplete the ozone layer"

there shall be substituted:

"controlled substances, other substances that deplete the ozone layer and of substances that are used to replace those substances, in particular those substances listed in Annex F"

L. Article 10: Financial mechanism

In paragraph 1 of Article 10 of the Protocol, for the words:

"Articles 2A to 2E and Article 2I, and any control measures in Articles 2F to 2H that are decided pursuant to paragraph 1 bis of Article 5 of the Protocol"

there shall be substituted:

"Articles 2A to 2E and Article 2I, any control measures in Articles 2F to 2H that are decided pursuant to paragraph 1 bis of Article 5 of the Protocol or with the measures laid down in Article 2J and in paragraph 8 qua of Article 5"

and after the words:

"control measures of the Protocol"

there shall be added:

"and the obligations laid down in Article 2J and in paragraph 8 qua of Article 5"

M. Article 17: Parties joining after entry into force

In Article 17 of the Protocol, for the words:

"Articles 2A to 2I"

there shall be substituted:

"Articles 2A to 2J"

N. Annexes

1. Annex C: Controlled substances

The following table shall replace the table for Group I in Annex C to the Protocol:

Group	Substance	Number of isomers	Ozone-Depleting Potential*)	Global Warming Potential (100 years)***
Group I				
$CHFCl_2$	(HCFC-21)**	1	0.04	151
CHF_2Cl	(HCFC-22)**	1	0.055	1810
CH_2FCl	(HCFC-31)	1	0.02	
C_2HFCl_4	(HCFC-121)	2	0.01-0.04	
$C_2HF_2Cl_3$	(HCFC-122)	3	0.02-0.08	
$C_2HF_3Cl_2$	(HCFC-123)	3	0.02-0.06	77
$CHCl_2CF_3$	(HCFC-123)**	-	0.02	
C_2HF_4Cl	(HCFC-124)	2	0.02-0.04	609
$CHFClCF_3$	(HCFC-124)**	-	0.022	
$C_2H_2FCl_3$	(HCFC-131)	3	0.007-0.05	
$C_2H_2F_2Cl_2$	(HCFC-132)	4	0.008-0.05	
$C_2H_2F_3Cl$	(HCFC-133)	3	0.02-0.06	
$C_2H_3FCl_2$	(HCFC-141)	3	0.005-0.07	
CH_3CFCl_2	(HCFC-141b)**	-	0.11	725
$C_2H_3F_2Cl$	(HCFC-142)	3	0.008-0.07	
CH_3CF_2Cl	(HCFC-142b)**	-	0.065	2310
C_2H_4FCl	(HCFC-151)	2	0.003-0.005	
C_3HFCl_6	(HCFC-221)	5	0.015-0.07	
$C_3HF_2Cl_5$	(HCFC-222)	9	0.01-0.09	
$C_3HF_3Cl_4$	(HCFC-223)	12	0.01-0.08	
$C_3HF_4Cl_3$	(HCFC-224)	12	0.01-0.09	
$C_3HF_5Cl_2$	(HCFC-225)	9	0.02-0.07	
$CF_3CF_2CHCl_2$	(HCFC-225ca)**	-	0.025	122
CF_2ClCF_2CHClF	(HCFC-225cb)**	-	0.033	595
C_3HF_6Cl	(HCFC-226)	5	0.02-0.10	
$C_3H_2FCl_5$	(HCFC-231)	9	0.05-0.09	
$C_3H_2F_2Cl_4$	(HCFC-232)	16	0.008-0.10	
$C_3H_2F_3Cl_3$	(HCFC-233)	18	0.007-0.23	
$C_3H_2F_4Cl_2$	(HCFC-234)	16	0.01-0.28	
$C_3H_2F_5Cl$	(HCFC-235)	9	0.03-0.52	
$C_3H_3FCl_4$	(HCFC-241)	12	0.004-0.09	
$C_3H_3F_2Cl_3$	(HCFC-242)	18	0.005-0.13	
$C_3H_3F_3Cl_2$	(HCFC-243)	18	0.007-0.12	
$C_3H_3F_4Cl$	(HCFC-244)	12	0.009-0.14	
$C_3H_4FCl_3$	(HCFC-251)	12	0.001-0.01	
$C_3H_4F_2Cl_2$	(HCFC-252)	16	0.005-0.04	
$C_3H_4F_3Cl$	(HCFC-253)	12	0.003-0.03	

Group	Substance	Number of isomers	Ozone-Depleting Potential*)	Global Warming Potential (100 years)***
$C_3H_5FCl_2$	(HCFC-261)	9	0.002-0.02	
$C_3H_5F_2Cl$	(HCFC-262)	9	0.002-0.02	
C_3H_6FCl	(HCFC-271)	5	0.001-0.03	

* Where a range of ODPs is indicated, the highest value in that range shall be used for the purposes of the Protocol. The ODPs listed as a single value have been determined from calculations based on laboratory measurements. Those listed as a range are based on estimates and are less certain. The range pertains to an isomeric group. The upper value is the estimate of the ODP of the isomer with the highest ODP, and the lower value is the estimate of the ODP of the isomer with the lowest ODP.

** Identifies the most commercially viable substances with ODP values listed against them to be used for the purposes of the Protocol.

*** For substances for which no GWP is indicated, the default value 0 applies.

2. Annex F

The following annex shall be added to the Protocol after Annex E:

Annex F: Other Substances

Group	Substance	Global Warming Potential (100 year)
Group I		
CH_2F_2	HFC-32	675
CH_3F	HFC-41	92
CHF_2CF_3	HFC-125	3 500
CHF_2CHF_2	HFC-134	1 100
CH_2FCF_3	HFC-134a	1 430
CH_2FCHF_2	HFC-143	353
CH_3CF_3	HFC-143a	4 470
CH_2FCH_2F	HFC-152	53
CH_3CHF_2	HFC-152a	124
CH_3CH_2F	HFC-161	12
CF_3CHFCF_3	HFC-227ea	3 220
$CH_2FCF_2CF_3$	HFC-236cb	1 340
CHF_2CHFCF_3	HFC-236ea	1 370
$CF_3CH_2CF_3$	HFC-236fa	9 810
$CH_2FCF_2CHF_2$	HFC-245ca	693
$CHF_2CH_2CF_3$	HFC-245fa	1030
$CF_3CH_2CF_2CH_3$	HFC-365 mfc	794
$CF_3CHFCHFCF_2CF_3$	HFC-43-10 mee	1 640
Group II		
CHF_3	HFC-23	14800

Article II: Relationship to the 1999 Amendment

No State or regional economic integration organization may deposit an instrument of ratification, acceptance or approval of or accession to this Amendment unless it has previously, or simultaneously, deposited such an instrument to the Amendment adopted at the Eleventh Meeting of the Parties in Beijing, 3 December 1999.

Article III: Relationship to the United Nations Framework Convention on Climate Change and Its Kyoto Protocol

This Amendment is not intended to have the effect of excepting hydrofluorocarbons from the scope of the commitments contained in Articles 4 and 12 of the United Nations Framework Convention on Climate Change and in Articles 2, 5, 7 and 10 of its Kyoto Protocol that apply to "greenhouse gases not controlled by the Montreal Protocol." Since this amendment does not foresee a complete phase-out of emissive uses of hydrofluorocarbons, as the Montreal Protocol does for controlled substances, each party to this Amendment shall continue to apply the provisions of the United Nations Framework Convention on Climate Change and its Kyoto Protocol identified above to HFCs as long as those provisions, respectively, remain in force with respect to such party.

Article IV: Entry into force

1. Except as noted in paragraph 2, this Amendment shall enter into force on 1 January 2017, provided that at least twenty instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.

2. The changes to Article 4 set out in Article I of this Amendment shall enter into force on 1 January 2019, provided that at least seventy instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.

3. For purposes of paragraphs 1 and 2, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

4. After the entry into force of this Amendment, as provided under paragraphs 1 and 2, it shall enter into force for any other Party to the Protocol on the ninetieth day following the date of deposit of its instrument of ratification, acceptance or approval.

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Open-ended Working Group of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer
Thirty-seventh meeting
Geneva, 4–8 April 2016
Item 4 (b) of the provisional agenda*

Dubai pathway on hydrofluorocarbons (HFCs) (decision XXVII/1): ways of managing HFCs, including the amendment proposals submitted by parties (UNEP/OzL.Pro.27/5, UNEP/OzL.Pro.27/6, UNEP/OzL.Pro.27/7 and UNEP/OzL.Pro.27/8)

Proposed amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer submitted by Kiribati, the Marshall Islands, Mauritius, the Federated States of Micronesia, Palau, the Philippines, Samoa and Solomon Islands

Note by the Secretariat

1. Pursuant to article 9, paragraph 2, of the Vienna Convention for the Protection of the Ozone Layer, the Secretariat is circulating a proposal to amend the Montreal Protocol on Substances that Deplete the Ozone Layer in respect of hydrofluorocarbons submitted by Kiribati, the Marshall Islands, Mauritius, the Federated States of Micronesia, Palau, the Philippines, Samoa and Solomon Islands (see annex). The proposal is being circulated as submitted, without formal editing by the Secretariat.

2. The amendment proposal, as set out in document UNEP/Ozl.Pro.27/8, along with three other proposals to amend the Protocol in respect of HFCs submitted by Canada, Mexico and the United States of America (UNEP/Ozl.Pro.27/5), India (UNEP/Ozl.Pro.27/6), and the European Union and its member States (UNEP/Ozl.Pro.27/7) , was discussed by the Twenty-Seventh Meeting of the Parties, which decided, in decision XXVII/1, that consideration of the amendment proposals would continue at meetings of the parties and meetings of the Open-ended Working Group to be held in 2016.

* UNEP/OzL.Pro.WG.1/37/1.

Annex

Island States'* Proposed Amendment to Phase Down HFCs under the Montreal Protocol

INTRODUCTION

Production, consumption and emissions of hydrofluorocarbons (HFCs)—greenhouse gases hundreds to thousands of times more potent in their warming impact than carbon dioxide—are expected to grow rapidly over the next several decades. This amendment to the Montreal Protocol would constrain the growth of HFCs through a gradual phase down of their production and consumption. This amendment would also limit by-product emissions of HFC-23.

KEY ELEMENTS OF THE AMENDMENT PROPOSAL

- Establishes differentiated HFC baselines for Non-Article 5 (Non-A5) and Article 5 (A5) Parties:
  - ***Non-A5 Baseline***: the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances.
  - ***A5 Baseline***: the average of its calculated levels of consumption of Annex F, Group I controlled substances in [2015, 2016 and 2017] plus sixty-five percent of the baseline of Annex C, Group I controlled substances.
- Establishes differentiated HFC phase down schedules for Article 2 and Article 5 Parties:

Non-A5 Parties		**A5 Parties**	
100% HFC 2011-2013 + 10% HCFC Baseline		100% HFC 2015-2017 + 65% HCFC Baseline	
2017	85%	2020	85%
2021	65%	2025	65%
2025	45%	2030	45%
2029	25%	2035	25%
2033	10%	2040	10%

- The HFC phase down schedule for Article 5 Parties coincides with the remaining reduction steps under the accelerated HCFC phase-out—2020, 2025, 2030—to capture synergies and efficiencies through a coordinated approach under the HCFC Phase-Out Management Plan (HPMP) process.
- A5 Parties that begin implementation of the HFC phase down in advance of the schedule would still be eligible for funding of their implementation under Article 10 of the Protocol.
- The financial mechanism is further strengthened to promote energy-efficient technologies with low global warming potentials (GWPs) and to overcome barriers to the uptake of those technologies, e.g. training of technicians and equipment support in the servicing sector, demonstration and pilot projects of low-GWP and not-in-kind technologies, and revision of antiquated safety standards and legislation.

* Kiribati, Marshall Islands, Mauritius, Micronesia (Federated States of), Palau, Philippines, Samoa and Solomon Islands

CONSISTENCY WITH RELATED CONVENTIONS AND MULTILATERAL AGREEMENTS

This amendment is not only consistent with the principles and objectives of the Vienna Convention and the Montreal Protocol, but is also consistent with the principles and objectives of the United Nations Framework Convention on Climate Change, including its ultimate objective and its principle of common but differentiated responsibilities and respective capabilities:

- By reducing the amount of HFCs produced and consumed, this amendment would complement the ultimate objective of the UNFCCC, as stated in its Article 2, to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.
- Action taken under this amendment would be led by developed country parties, and then followed later in time by similar actions taken by developing country parties, consistent with Article 3.1 of the UNFCCC.
- Developed country parties would provide, through financial contributions to the Multilateral Fund, the means of implementation for the "agreed full incremental costs" of actions to be undertaken by developing country parties, consistent with Article 4.3 of the UNFCCC.
- By reducing the amount of HFCs produced and consumed, this amendment would further complement the Kyoto Protocol and any future emissions control regime. However, this amendment, as per its Section III, would have no effect on the status of HFCs under the Kyoto Protocol, nor would it affect the opportunities of Parties to the Kyoto Protocol to meet their commitments under that treaty by reducing HFC emissions.

Text of Island States' Proposed Amendment to Phase Down HFCs under the Montreal Protocol

SECTION I: AMENDMENT

Article 1, paragraph 4

In paragraph 4 of Article 1 of the Protocol, for the words:

"Annex C or Annex E"

There shall be substituted:

"Annex C, Annex E or Annex F"

Article 1, paragraphs 9 and 10

The following paragraphs shall be inserted after paragraph 8 of Article 1 of the Protocol:

9. "UNFCCC" means the United Nations Framework Convention on Climate Change, adopted on 9 May 1992.

10. "Kyoto Protocol" means the Kyoto Protocol to the UNFCCC, adopted 11 December 1997.

Article 2, paragraph 5

In paragraph 5 of Article 2 of the Protocol, for the words:

"Article 2H"

There shall be substituted:

"Articles 2H and 2J"

Article 2, paragraphs 8(a) and 11

In paragraphs 8(a) and 11 of Article 2 of the Protocol, for the words:

"Articles 2A to 2I"

There shall be substituted:

"Articles 2A to 2J"

Article 2, paragraph 9

The "and" at the end of subparagraph 9(a)(i) of Article 2 of the Protocol shall be moved to the end of subparagraph 9(a)(ii).

The following subparagraph shall be inserted after subparagraph 9(a)(ii) of Article 2 of the Protocol:

"(iii) Adjustments to the global warming potentials specified in Annexes C and F should be made and, if so, what the adjustments should be;"

Article 2J

The following Article shall be inserted after Article 2I of the Protocol:

"**Article 2J: Hydrofluorocarbons**

1. Each Party shall ensure that for the twelve-month period commencing on 1 January [2017], and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually, [eighty-five] percent of the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances. Each Party producing

one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually, [eighty-five] percent of the average of calculated levels of production in [2011, 2012, and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten percent of the average of its calculated level of production in [2011, 2012, and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January [2021], and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually, [sixty-five] percent of the average of its calculated levels of consumption in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances. Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually, [sixty-five] percent of the average of its calculated levels of consumption in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten percent of the average of its calculated levels of production in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January [2025], and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually, [forty-five] percent of the average of its calculated levels of consumption in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances. Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually, [forty-five] percent of the average of its calculated levels of consumption in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten percent of the average of its calculated levels of production in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January [2029], and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually, [twenty-five] percent of the average of its calculated levels of consumption in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances. Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually,

[twenty-five] percent of the average of its calculated levels of consumption in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten percent of the average of its calculated levels of production in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances.

5. Each Party shall ensure that for the twelve-month period commencing on 1 January [2033], and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually, [ten] percent of the average of its calculated levels of consumption in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances. Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually, [ten] percent of the average of its calculated levels of consumption in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten percent of the average of its calculated levels of production in [2011, 2012 and 2013] of Annex F, Group I plus ten percent of the baseline of Annex C, Group I controlled substances.

6. Each party shall ensure that for the twelve-month period commencing on January 1, 2017, and in each twelve-month period thereafter, its calculated level of production of Annex F, Group II controlled substances generated as a byproduct in each production line that manufactures Annex C, Group I or Annex F controlled substances shall not exceed [0.1] percent of the mass of Annex C, Group I substances or Annex F substances manufactured in that production line.

7. Each Party shall ensure that any destruction of Annex F, Group II controlled substances generated by facilities that produce Annex C, Group I controlled substances shall occur only by technologies to be approved by the Parties.

Article 3

In the preamble to Article 3 of the Protocol, for the words:

"2A to 2I"

There shall be substituted:

"2A to 2J"

In the preamble to Article 3 of the Protocol, for the words:

"Annex C or Annex E"

There shall be substituted:

"Annex C, Annex E or Annex F"

For the final semi-colon of subparagraph (a)(i) of Article 3 of the Protocol there shall be substituted:

", except, for the purposes of Article 2J, by its global warming potential as specified in Annex C or Annex F;"

For the period at the end of subparagraph (c) of Article 3 of the Protocol there shall be substituted a semi-colon, and the "and" at the end of subparagraph (b) of Article 3 of the Protocol shall be moved to the end of subparagraph (c).

The following clause should be added to the end of Article 3 of the Protocol:

"(d) Emissions of Annex F, Group II controlled substances by adding together all emissions of such substances from facilities that produce Annex C, Group I or Annex F controlled substances. For facilities that produce Annex C, Group I or Annex F controlled substances, emissions shall equal the amount of Annex F, Group II controlled substances generated at the facility, including amounts emitted from equipment leaks, process vents, and destruction devices, but excluding amounts destroyed, stored on site for destruction, shipped off site for destruction, or sold for a subsequent use approved by the Parties."

Article 4, paragraph 1 sept.

The following paragraph shall be inserted after paragraph 1 *sex* of Article 4 of the Protocol:

"1 *sept*. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of the controlled substances in Annex F from any State not party to this Protocol."

Article 4, paragraph 2 sept.

The following paragraph shall be inserted after paragraph 2 *sex* of Article 4 of the Protocol:

"2 *sept*. Within one year of the date of entry into force of this paragraph, each Party shall ban the export of the controlled substances in Annex F to any State not party to this Protocol."

Article 4, paragraphs 5, 6 and 7

In paragraphs 5, 6 and 7 of Article 4 of the Protocol, for the words:

"Annexes A, B, C and E"

There shall be substituted:

"Annexes A, B, C, E and F"

In paragraph 8 of Article 4 of the Protocol, for the words:

"Articles 2A to 2I"

There shall be substituted:

"Articles 2A to 2J"

Article 4B

The following paragraph shall be inserted after paragraph 2 of Article 4B of the Protocol:

"2 *bis*. Each Party shall, by 1 January 2017 or within three months of the date of entry into force of this paragraph for it, whichever is later, establish and implement a system for licensing the import and export of new, used, recycled and reclaimed controlled substances in Annex F. Any Party operating under paragraph 1 of Article 5 that decides it is not in a position to establish and implement such a system by 1 January 2017 may delay taking those actions until 1 January 2020."

Article 5, paragraph 4

In paragraph 4 of Article 5 of the Protocol, for the words:

"Articles 2A to 2I"

There shall be substituted:

"Articles 2A to 2J"

Article 5, paragraphs 5 and 6

In paragraphs 5 and 6 of Article 5 of the Protocol, for the words:

"Article 2I"

There shall be substituted:

"Articles 2I and 2J"

Article 5 paragraph 8 qua.

The following paragraph shall be inserted after paragraph 8 *ter.* of Article 5 of the Protocol:

"8 *qua.* Each Party operating under paragraph 1 of this Article shall:

(a) in order to meet its basic domestic needs, be entitled to delay its compliance:

(i) with the control measures set out in paragraph 1 of Article 2J for three years;

(ii) with the control measures set out in paragraph 2 of Article 2J for four years;

(iii) with the control measures set out in paragraph 3 of Article 2J for five years;

(iv) with the control measures set out in paragraph 4 of Article 2J for six years, and;

(v) with the control measures set out in paragraph 5 of Article 2J for seven years,

subject to any adjustments made to the control measures in Article 2J in accordance with Article 2(9);

(b) for purposes of calculating its consumption baseline under Article 2J, use the average of its calculated levels of consumption of Annex F, Group I controlled substances in [2015, 2016 and 2017] plus sixty-five percent of the baseline of Annex C, Group I controlled substances;

(c) for purposes of calculating its production baseline under Article 2J, use the average of its calculated levels of production of Annex F, Group I controlled substances in [2015, 2016 and 2017] plus sixty-five percent of the baseline of Annex C, Group I controlled substances.

Article 6

In Article 6 of the Protocol, for the words:

"Articles 2A to 2I"

There shall be substituted:

"Articles 2A to 2J"

Article 7, paragraphs 2, 3 and 3 ter.

In paragraph 2 of Article 7, the comma following the words "Annex E, for the year 1991" shall be removed and a semicolon shall be inserted.

The following line shall be inserted after the line that reads "— in Annex E, for the year 1991," in paragraph 2 of Article 7 of the Protocol:

"—in Annex F, for the years 2011, 2012 and 2013, except that Parties operating under paragraph 1 of Article 5 shall provide such data for the year 2015."

In paragraphs 2 and 3 of Article 7 of the Protocol, for the words:

"C and E"

There shall be substituted:

"C, E and F"

The following paragraph shall be added to Article 7 of the Protocol after paragraph 3 *bis*:

"3 *ter*. Each Party shall provide to the Secretariat statistical data of its annual emissions of Annex F, Group II controlled substances in accordance with Article 3(d) of the Protocol and the amount of Annex F, Group II controlled substances captured and destroyed by technologies to be approved by the Parties.

Article 10, paragraph 1

In Article 10, paragraph 1 of the Protocol, for the words:

"Articles 2A to 2E and Article 2I"

There shall be substituted:

"Articles 2A to 2E, Article 2I and Article 2J"

At the end of Article 10, paragraph 1 of the Protocol, following the sentence ending:

"incremental costs shall be decided by the meeting of the Parties"

There shall be added the following sentences:

"Where a Party operating under paragraph 1 of Article 5 chooses to avail itself of funding from any other financial mechanism to meet any part of its agreed incremental costs, that part shall not be met by the financial mechanism under Article 10 of this Protocol. Where a Party operating under paragraph 1 of Article 5 chooses to comply with the provisions of Article 2J in advance of the schedule agreed by the Parties, that Party shall be able to avail itself of the funding described in Article 10 of the Protocol for such early compliance."

At the end of Article 10, paragraph 1 of the Protocol, there shall be added the following:

"*1 bis*. The Parties shall strengthen the financial mechanism for providing financial and technical cooperation to Parties operating under paragraph 1 of Article 5 of this Protocol in order to promote energy efficiency and to overcome barriers to the uptake of technologies with low global warming potentials in order to implement the provisions of Article 2J and Article 5, paragraph 8 *qua*."

Article 17

In Article 17 of the Protocol, for the words:

"Articles 2A to 2I"

There shall be substituted:

"Articles 2A to 2J"

Annex C and Annex F

Annex C, Group I is amended to add the 100-year Global Warming Potential for the following substances:

Substance	100-Year Global Warming Potential
HCFC-21	151
HCFC-22	1,810
HCFC-123	77
HCFC-124	609
HCFC-141b	725
HCFC-142b	2,310
HCFC-225ca	122
HCFC-225cb	595

A new Annex F shall be added to the Protocol, following Annex E. It shall read:

Annex F: Controlled Substances

Substance	100-Year Global Warming Potential
Group I	
HFC-32	675
HFC-41	92
HFC-125	3,500
HFC-134	1,100
HFC-134a	1,430
HFC-143	353
HFC-143a	4,470
HFC-152	53
HFC-152a	124
HFC-161	12
HFC-227ea	3,220
HFC-236cb	1,340
HFC-236ea	1,370
HFC-236fa	9,810
HFC-245ca	693
HFC-245fa	1,030
HFC-365mfc	794
HFC-43-10mee	1,640
HFC-1234yf (HFO-1234yf)	4
HFC-1234ze (HFO-1234ze)	6
HFC-1336mzz (HFO-1336mzz)	9
Group II	
HFC-23	14,800

Section II: Relationship to the 1999 Amendment

No State or regional economic integration organization may deposit an instrument of ratification, acceptance or approval of or accession to this Amendment unless it has previously, or simultaneously, deposited such an instrument to the Amendment adopted at the Eleventh Meeting of the Parties in Beijing, 3 December 1999.

Section III: Relationship to the UNFCCC and Its Kyoto Protocol

This Amendment shall have no effect on the status of hydrofluorocarbons under the Kyoto Protocol, and will not except hydrofluorocarbons from the scope of the commitments contained in Articles 4 and 12 of the UNFCCC and in Articles 2, 5, 7 and 10 of its Kyoto Protocol that apply to "greenhouse gases not controlled by the Montreal Protocol." Each Party to this Amendment shall continue to apply the provisions of the UNFCCC and its Kyoto Protocol identified above to hydrofluorocarbons as long as those provisions, respectively, remain in force with respect to such Party.

Section IV: Entry into Force

1. Except as noted in paragraph 2, below, this Amendment shall enter into force on 1 January 2017, provided that at least twenty instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.
2. The changes to Article 4 of the Protocol in Section I of this Amendment shall enter into force on 1 January 2017, provided that at least seventy instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.
3. For purposes of paragraphs 1 and 2, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.
4. After the entry into force of this Amendment, as provided under paragraphs 1 and 2, it shall enter into force for any other Party to the Protocol on the ninetieth day following the date of deposit of its instrument of ratification, acceptance or approval.